

### REMARKS/ARGUMENTS

Applicants appreciate the thorough examination of the present application, as evidenced by the first Official Action. The first Official Action provisionally rejects all of the pending claims, namely Claims 1-18, under the judicially-created doctrine of double patenting in view of U.S. Patent Application No. 10/608,697. Applicants note that at such time as this provisional rejection matures into an obviousness-type double patenting rejection with the issuance of the present application or the '697 application, Applicants will respond accordingly, such as by filing a Terminal Disclaimer.

The Official Action also rejects Claims 4, 7-12 and 16 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicant regards as the invention. More particularly, the Official Action objects to a typographical error in Claims 4, 10 and 16; and objects to use of the phrase "capable of" in the system Claims 7-12. In response thereto, Applicants have amended Claims 4, 10 and 16 to correct the inadvertent typographical error. And although Applicants respectfully submit that functional language such as "capable of" is perfectly acceptable claim language, Applicants have amended Claims 7-13 to replace the "capable of" claim language with "configured to" language. In view of the foregoing, Applicants respectfully submit that the indefiniteness rejection of Claims 4, 7-12 and 16 is overcome.

As the aforementioned rejections are the only grounds of rejection of Claims 2-4, 8-10 and 14-16, Applicants respectfully submit that at least these claims are in condition for immediate allowance. Nonetheless, the first Official Action further rejects the remaining claims, namely Claims 1, 5-7, 11-13, 17 and 18, under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0072253 to Hiramatsu, in view of U.S. Patent No. 5,537,443 to Yoshino et al. As explained below, however, Applicants respectfully submit that the claimed invention is patentable over Hiramatsu and Yoshino, taken individually or in combination, and accordingly traverse this rejection of the claims. In view of the amended claims and the remarks presented herein, Applicants respectfully request reconsideration and allowance of all of the pending claims of the present application.

Independent Claim 1 recites a method including receiving, from a receiver, a Quadrature

Amplitude Modulated (QAM) signal including a pilot channel and a supplemental channel that includes traffic of a user and at least one other user, where the signal is received over one or more slots. As recited, the method also includes estimating an amplitude of a signal constellation of the QAM signal over one or more of the slot(s) or fractions of the slot(s) based upon a speed of the receiver.

In contrast to independent Claim 1, and as conceded in the Official Action, Hiramatsu does not teach or suggest estimating an amplitude of a signal constellation of the QAM signal over one or more of the slot(s) or fractions of the slot(s) based upon a speed of the receiver. Nonetheless, the Official Action alleges that Yoshino discloses this feature, and that one skilled in the art would have been motivated to modify Hiramatsu to include the feature to thereby teach the claimed invention. Applicants respectfully disagree, however, and submit that like Hiramatsu, Yoshino also does not teach or suggest estimating an amplitude of a signal constellation of the QAM signal over one or more of the slot(s) or fractions of the slot(s) based upon a speed of the receiver.

Yoshino generally discloses a receiver and method for canceling signal interference in a manner that purports to compensate for the degradation of transmission characteristics due to co-channel or similar interference signals from other adjacent cells in digital mobile radio communication. The Official Action cites column 15, lines 3-26 and column 18, lines 32-42 for disclosing the aforementioned feature of independent Claim 1. In neither passage, however, does Yoshino disclose estimating the amplitude of a signal or anything related thereto based upon the speed of the receiver that received the signal. Yoshino does appear to disclose a system that estimates, not the amplitude of a signal constellation of a QAM signal (as in independent Claim 1), but characteristics of a communication channel or transmission line for use in interference cancellation. The Yoshino system appears to estimate these characteristics in a manner that accounts for fast changes in the channel due to fading. Thus, instead of estimating the signal constellation of a QAM signal based on receiver speed, as in independent Claim 1, Yoshino at best discloses estimating channel characteristics for a fast changing channel.

As neither Hiramatsu nor Yoshino individually teach or suggest the claimed feature of estimating an amplitude of a signal constellation of the QAM signal over one or more of the

slot(s) or fractions of the slot(s) based upon a speed of the receiver, the combination of Hiramatsu and Yoshino likewise does not teach or suggest this feature. Applicants therefore respectfully submit that independent Claim 1, and by dependency Claims 2-6, is patentably distinct from Hiramatsu and Yoshino, taken individually or in combination. Applicants also respectfully submit that independent Claims 7 and 13 recite subject matter similar to that of independent Claim 1, including the aforementioned feature of estimating the signal constellation of a QAM signal based on receiver speed. As such, Applicants respectfully submit that independent Claims 7 and 13, and by dependency Claims 8-12 and 14-18, are also patentably distinct from Hiramatsu and Yoshino, taken individually or in combination, for at least the reason given above with respect to independent Claim 1.

For at least the foregoing reasons, Applicants respectfully submit that the rejection of Claims 1, 5-7, 11-13, 17 and 18 as being unpatentable over Hiramatsu, in view of Yoshino, is overcome.

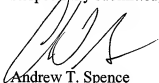
Appl. No.: 10/608,345  
Amdt. dated February 15, 2007  
Reply to Official Action of November 15, 2006

**CONCLUSION**

In view of the amended claims and the remarks presented above, Applicants respectfully submit that the present application is in condition for allowance. As such, the issuance of a Notice of Allowance is therefore respectfully requested. In order to expedite the examination of the present application, the Examiner is encouraged to contact Applicants' undersigned attorney in order to resolve any remaining issues.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,



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